

## A MOTOR VEHICLE FENDER HAVING A BREAKABLE ZONE

The present invention relates to the field of safety for pedestrians involved in road traffic accidents.

### BACKGROUND OF THE INVENTION

5 It is known that the regions of the bodywork of a motor vehicle surrounding the junctions between each front fender and the hood are particularly dangerous for pedestrians since said regions are very rigid.

### BRIEF SUMMARY OF THE INVENTION

10 The invention seeks to protect pedestrians by deploying airbags outside the vehicle to cover those dangerous regions and prevent or dampen any impacts against them.

To this end, the invention provides a motor vehicle fender having a skin separating the inside and the outside of the fender, wherein said skin possesses a breakable zone suitable for opening when subjected to thrust from the inside towards the  
15 outside of the fender.

According to other advantageous features of the invention:

- the fender is made of plastics material, for example of a thermoplastic material or a thermosetting material;
- the inside of the fender includes an airbag housing situated in register with the  
20 breakable zone; and
- the airbag housing is integrally molded with the fender made of plastics material.

# BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic view of a motor vehicle fender according to the invention.

Figure 2 is a schematic view of a transversal cut of the fender of Figure 1.

## DETAILED DESCRIPTION OF THE INVENTION

5 There follows a detailed description of an embodiment of the invention given by way of example.

A motor vehicle front fender 10 is formed from NORYL® GTZ, which is a polymer blend comprising polyamide reinforced with modified polyphenylene ether polymer. The fender 10 comprises a skin having an outside face 12 and an inside face 14. The outside face 12 of the fender 10 is intended to be exposed and visible from outside the vehicle, while the inside face 14 is intended to face towards the inside of the vehicle when the fender 10 is in position on the vehicle. The outside face 12 is thus on the outside of the fender 10 and thus the inside face 14 is on the inside of the fender 10.

The thickness of the skin is substantially equal to 2 millimeters (mm).

15 The fender 10 generally occupies a vertical plane (when in position on the vehicle) and is terminated on top by a top edge 16 close to the hood.

In the vicinity of this edge 16, a substantially rectangular breakable zone 18 is defined by a shallow groove 20, e.g. having a depth of 1 mm.

To preserve the appearance of the fender 10, the groove 20 is formed in the inside face 14 only, the outside face 12 being uniform, including over the groove 20.

This groove 20 forms a line of weakness that gives way to open up a rectangular passage through the fender 10 in the event of thrust coming from inside the fender 10 and acting towards the outside.

This thrust can result from the violent deployment of an airbag 22 housed in a housing 24 located on the inside face 14 of the fender 10 in register with the breakable zone 18 defined by the groove 20. The housing 24 may either be fitted to the fender 10 or it may be integrally molded therewith.

This particular embodiment is described purely by way of example and does not present any limiting character.